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SCHOOL AND SOCIETY

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WITH THE COOPERATION OF W. CARSON RYAN, JR., AND RAYMOND WALTERS

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SCHOOL AND SOCIETY

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THE EVOLUTION OF EXPERIMENTAL SCHOOLS

The first school was an experiment and must have aroused not only curiosity but opposition from the conservatives of the tribe. Every new school is, to some extent, an experiment which may succeed or fail. Teaching is experimenting with young lives to improve them. Every day's work of a conscientious teacher is a series of experiments. Because of these facts, it is necessary to limit the meaning of the term "experimental schools," and the writer does it as follows: (1) schools which made *marked innovations* from current practices, constitute one group of experimental schools, (2) schools which have been established for the conscious aim of experimentation. This second group for convenience will be subdivided into two groups. The first is a type of school which experiments in curricula, methods, etc., but has neither an immediate or effective relationship to the preparation of teachers. The second group includes those schools of observation and student teaching in which experiment is a prominent part.

The writer does not know when the first school which was a marked innovation was established. Surely the teachings of Socrates and of Jesus of Nazareth were marked innovations from existing practices. Probably similar examples exist in the early civilization of the Egyptians, Hindoos, Jews and Chinese. Reliable data are restricted to the modern period and such data are the basis of the balance of this discussion.

Vittorino de Feltre's school at Mantua was a real and novel experiment (1423–1446). Facilities were placed at his disposal by the Duke of Mantua primarily to educate the children of the Duke. Children from other noble families were included. In the school there was a measure of self-government among the pupils. Not only was there a place for the usual curriculum, but physical education and music had a part to play. In other ways, this was a prominent innovation—an innovation which seems to have had few imitators.[1]

Sturm at Strasbourg established what has come to be known as a gymnasium. A ten-year curriculum, the core of which was Latin language and literature, a rather complete organization, and successful teaching characterized the school. It was successfully advertised and seems to have had considerable influence on the establishment of the type of school known as the gymnasium (Circ. 1536). The chief feature of unique character was the ten-year (class) organization.[2]

The great Sense-Realist, John Amos Comenius, was a remarkable innovator in the theory of education for his time. During the years 1650–54, he lived at Saros-Patak, Hungary. At the desire of the school authorities there, he drafted a plan for their schools. This was a real reorganization, a real experiment. Throughout seven classes into which the school was organized, the following unique curricular elements were included: music, history, games; in class five, content on operations of the human mind, geography, optics, history of mechanical inventions; in class six, material "to deal with human society and laws of economies," geography, objective presentation of facts by pictures and dramatization.

[1] Woodward, W. H., "Vittorino de Feltre and other Humanist Education," pp. 1–92.

[2] Cubberley, E. P., "Readings in the History of Education," Sec. 137. Also, K. von Raumer in Barnard's, *American Journal of Education*, Vol. 4, pp. 167–82.

The plan seems to have had a very limited influence.[3]

The school system of the Society of Jesus represented in their Collège Inferior and Collège Superior (among which some of the latter were teacher preparing schools) were marked experiments in the following respects: (1) in the military system of control and administration; (2) in the selection of internal classroom organization and instruction from a variety of existing schools and organizing these features to suit their purposes of instruction; (3) in the training of the Jesuit teacher, which training included a type of practice teaching under supervision. Outside of these features, the system was similar to others. The purpose precluded much change in their system, after it was once established. Though the establishment of such schools was an experiment, the attempt to make changes can hardly be said to have been encouraged (1634–1773).[4]

The city of Halle (Germany) was the scene of several experiments in schools (1694–1700). In 1694, the University of Halle was founded, and has since been called the first modern university. It was an experiment, a marked innovation in the following respects: (1) it had a faculty composed partly of men who were out of sympathy with the scholastic and arid classical atmosphere of the existing universities; (2) vernacular language rather than Latin became the language of instruction; (3) philosophy in a *reorganized form* was adopted; (4) the newer content in science and mathematics was given a place in the curriculum; (5) later (1711) Gundling, one of the faculty of Halle, stated the modern university theory of Lehrfreiheit and Lehrnfreiheit—a doctrine at that time revolutionary in character.

[3] Cubberley, E. P., "Readings in the History of Education," Sec. 220.

[4] Schwickerath, "Jesuit Education, and Compayre, Loyola and the Educational System of the Jesuits."

The work of Augustus Herman Francke (1663–1727) is also closely associated with the city of Halle. A sincere Pietist in religion, Francke felt keenly the lack of contact between the existing schools and necessary life conditions. Accordingly, he began in 1695 the establishment of his now famous "Institutions" by opening at Halle a school for poor children. The following brief summary of his remarkable work is quoted from Cubberley: "A pay school for the well-to-do was soon added, and soon another school for the children of the nobility. An orphan school also was in time provided. The school for the poor developed into a vernacular or Burgher (volks; peoples) school, or Gymnasium, and the school for nobles into a higher scientific school, or Pädagogium as it was called. . . . In the Burgher School, he gave the children instruction in history, geography and animal life, in addition to the reading, writing, counting, music and religion of the usual German vernacular school. Into the Gymnasium, he introduced instruction in history, geography, music, science and mathematics, in addition to the usual Latin, Greek and Hebrew. He also changed the purpose of the language instruction. Greek was studied to be able to read the New Testament in the original, and Hebrew better to understand the Old Testament. The Pädagogium was provided with a botanical garden, and cabinet of natural history, physical apparatus, a laboratory for the study of chemistry and anatomy, and a workshop for turning and glass cutting. Independent of the work of Comenius, but as an outgrowth of the new movement for the study of science now beginning to influence educational thought, we have here the most important attempt at the introduction into the school of some realism, or Realien, as the Germans say, that the modern world had so far witnessed. In 1697, Francke added a Seminarium Praeceptorium to train teachers in his new ideas. This was

the first teachers' training school in German lands.''[5]

Julius Hecker (1707–1768) was a pupil under Francke and also a teacher under Francke at Halle. Imbued with the ideas of sense realism, he went to Berlin and established there the first clear-cut example of a German Realschule, which became known as the Royal Realschule. The curriculum consisted of religion, ethics, Latin, French, German, mathematics, drawing, geography, history, mechanics, architecture, nature-study, study of the human body (anatomy), agriculture, bookkeeping, manufacturing and mining. This is the progenitor of the many Realschulen established later in German countries.

The next movement to produce an experimental school was the naturalistic tendency as illustrated by the ideas of Rousseau's ''Émile'' (1762). The creator of the school, known as the Philanthropinum, was a German, Johann Bernard Basedow. This man was a restless spirit, a critic of existing conditions and confessedly a disciple of Rosseau's ''Émile.'' He tried to secure aid to establish a school according to his ideas, and after several failures, Prince Leopold of Dessau financed Basedow's plan (1774), and the Philanthropium was established at Dessau in 1784. In this institution, dancing, riding, Latin, exercise, turning, planing, carpentry, anatomy, chemistry, mathematics and mathematical drawing, physics, astronomy, Greek, French, English, German, writing, music, reading, current events and conversation are the subjects listed as composing the curriculum. A fad for philanthropiums appeared and the imitators soon brought even the good features into disrepute.[6]

PESTALOZZI'S EXPERIMENTAL SCHOOLS AT NEUHOF, STANZ, BURGDORF AND YVERDON

Heinrich Pestalozzi (1746–1827) produced four experimental schools. One was started at Neuhof in 1774, a second at Stanz in 1798, a third at Burgdorf in 1799 and the fourth at Yverdon in 1804. The first was an attempt to educate poor children and make them reliable, self-sufficient beings. The second was an attempt to care for the orphans of Stanz who were made so by a pillage by French soldiers. The third included instruction in the village school and some teacher training work, and the last, the most pretentious of all, was an experiment in the education of children and the training of teachers. Though Pestalozzi made more or less of a failure of these ventures, they had a widespread influence in Europe and America. Pestalozzi believed that an institution for the poor at Neuhof could be made self-supporting by the labors of the children themselves. This idea, modified and readjusted, was used by Fellenberg at Hofwyl, Switzerland (1771). Several institutions were directed by Fellenberg from 1806 to 1844. He aimed to unite the industrial and intellectual education for peasant children, and to create a closer bond between peasants and upper classes by educating them together. The manual labor idea was widely copied in the United States, and the particular feature inherent in Pestalozzian ideas has been abandoned, but the union of manual, technical and intellectual education continues.[7]

FROEBEL'S KINDERGARTEN

Friedrich Wilhelm August Froebel (1782–1852) after a varied experience conceived the idea of an institution for little children which he later named the Kindergarten. At Blankenberg, in 1837, he opened the institution. Based on a philosophy highly tinged with theological beliefs and mysticisms, he developed a series of practices which constituted the original kindergarten. Play with the ''gifts,'' music, song, stories, activities called ''occupa-

[5] Cubberley, E. P., ''History of Education,'' pp. 418–419.

[6] Barnard, *Am. Jour. Ed.*, Vol. 5, pp. 487–520.

[7] De Guimps, ''Pestalozzi, His Life, and Works,'' Ch. V, VIII, XV.

tions'' occupied the children in the Kindergarten. A large degree of *freedom* was allowed. Dependence on the child's self-activity was great. The director was to help the children, but not prescribe their activities too closely. His own country turned against him, but the Kindergarten secured support in other countries. To-day it is probably the most frequent institution for children of the ages 4–5 years. It has been modified in theory and practice much since its establishment.[8]

Pastor Oberlin's Schools

Jean Frederick Oberlin (1740) was pastor of a remote community in Vosges in Alsace, and not only a preacher but an all-round social reformer. Among his many works was an institution to care for the children under seven years of age who were often neglected while their parents were away from home at labor.

> At first the schools were conducted only one day a week. . . . Having been previously initiated in the branches of knowledge best adapted to the purpose, the conductrice taught the children by turns whatever was most suited to their infant capacities. . . . To amuse their minds—and to accustom to industrious habits, the elder boys were taught to pick or card wool or cotton, and the girls to spin, sew and knit. . . . While so employed, their conductrice related and explained little stories from the Bible or from other sources. . . . She also taught them to sing and repeat hymns, instructed them in facts of geography and botany; and trained them to be cleanly in person and respectful and polite in their general behavior.

These schools have often been called knitting schools. They were suggestive of later ventures made in France in infant schools.[9]

Monitorial Schools of Bell and Lancaster

Dr. Andrew Bell and Joseph Lancaster are responsible for the now historic experiment with monitorial schools. The former was urged and supported by the Anglican Church societies; the latter by the non-conformist groups of England. The controlling idea was the application of the rudiments of an elementary education to great groups of children by instruction given by one mature teacher and many pupil or monitor teachers. The monitorial school flourished in England, and under the propaganda of Lancaster secured some foothold in the United States. The influence was temporary but of great importance in helping the mass of people to become accustomed to schools (1797–1840 Circ.).

Infant Schools and Écoles Maternelles

The infant school (1769, France, and 1799, England) was an attempt to provide very simple instruction for children of the pre-school age. Samuel Wilderspin popularized the school in England. Robert Owen helped to originate the infant school at New Lanark, Scotland, for the instruction of children whose parents worked in the mills. When established elsewhere, the purpose was not the same. In France, the infant school was the forerunner of the modern école maternelle which is now a part of the French school system. Infant schools were established in some cities in the United States. The experiment seems to have been more or less of a failure, even though the purposes were, in the main, desirable purposes.

The Houses of Childhood

Dr. Maria Montessori is the originator of the Houses of Childhood in Rome, which have now spread to other countries. Physical, anthropometric measurements, health examinations, much freedom of activity, gymnastic exercises and games, activities with the Montessori apparatus in lacing, distinguishing colors, sounds, weight, etc., constitute some of the features of these in-

[8] Froebel, ''Education of Man and Pedagogics of the Kindergarten''; Kilpatrick, ''Froebellian Kindergarten Theory Examined.''

[9] Barnard, H., *Am. Jour. of Ed.*

stitutions. "The education of the senses" is an important aim with Dr. Montessori.[10] The establishment of the Houses of Childhood in other countries has been slow.

FRANKLIN'S ACADEMY

In 1749, Benjamin Franklin published proposals for an English school in Philadelphia. This school was to provide a curriculum based primarily on the vernacular language and literature, the sciences and the social studies. It was opened in 1751. By 1785, Franklin observed that it had changed from the original plan to a typical classical school of the day.[11] This experiment failed in its original purposes, but it grew into the beginnings of the modern University of Pennsylvania. The original school is often referred to as the first academy in America.

AN INNOVATION IN HIGHER EDUCATION

Oberlin College, at Oberlin, Ohio, is an example of marked innovation from tradition in collegiate education. Beginning about 1835–40, it emerged from the civil-war period with a vigorous growth and plenty of antagonism from its opponents. The institution admitted women students on an equal basis with men students, no students were barred on account of race or color, and a form of government was adopted which placed the control of educational matters in the hands of the faculty rather than of the trustees. While Oberlin had many other very commendable features, the three listed are the most important of the innovations. To-day the first two of these features are very common in higher educational institutions in the northern states.[12]

THE BREAK WITH TRADITIONS AT REED COLLEGE

One of the most recent experiments in higher education is Reed College, at Portland, Oregon. The first report of the President, Dr. W. T. Foster, covers the period of 1910–1919. From this report is taken the following statement: "Among the more radical departures from the prevailing college practices, announced by the president of Reed College in 1910, before a faculty had been selected, were the following: no intercollegiate athletics, no fraternities, no sororities, number of students rigidly limited, no students admitted 'on condition,' physical examinations required for admission, final oral examination required for degrees, participation in final oral examination by persons not members of the faculty, thesis required of each candidate, oral examination on thesis, and an 'honor principle' for conduct of examinations and all other affairs."

After five years, it appeared from statements of the faculty that they "recorded a virtually unanimous judgment in favor of every one of the larger policies in which the college had departed from tradition." On the subject of athletics (one of the "sore spots" in American colleges), the following statement is illuminating: "No intercollegiate games to be permitted for a number of years, therefore no paid coaches, no seasonal coaches, no pre-season coaches, no paid officials, no training tables, no traveling expenses, no grandstands." The modern conception of health education and physical education was adopted and a program planned by the college to utilize this instead of intercollegiate athletics. This is no small innovation to make in a day when colleges have gone near to madness in their attention to intercollegiate athletics and have neglected the more universally valuable parts of health and physical education.

The faculty has a larger share in college government, particularly in educational matters, than is common in American colleges at present. The college has made a brave start for such an institution, and while its program has been somewhat modi-

[10] Montessori, M., "The Montessori Method."

[11] Barnard, H., *Am. Jour. of Ed.*, Vol. 27, pp. 445–448.

[12] Leonard, D. L., "The Story of Oberlin."

fied up to 1922–23, the main features still obtain, and its future history will be of interest to American higher education.[13] To the noble spirited genius who began these innovations, Dr. William Trufant Foster, much credit is due.

INNOVATIONS IN RELIGIOUS EDUCATION: THE MALDEN EXPERIMENT AND OTHER EXAMPLES

The secularizing of American public schools in the last century left unsolved the many vexing problems of religious education. Serious-minded thinkers have recently devised plans to help in the solution. One of these is the system in practice at Malden, Massachusetts. Dr. Walter S. Athearn, of Boston University, is the guiding genius of the experiment. It provides instruction in religion for children of the elementary and high-school years and a training school for teachers of the local church schools. Paid, trained workers conduct the instruction. The control and administration is in the hands of a group of citizens elected by a "town-meeting" popular election. Pupils are excused from the local public school work for certain periods each week and are allowed instead to elect the religious instruction provided by the system. The experiment has helped to stimulate much interest in the provision of more and better religious teaching than is now provided in the typical church school.[14]

At Gary (Indiana), Van Wert, Delaware and Toledo (Ohio), plans somewhat similar are now in operation. In many other places in the United States the experiment is being tried, and the movement has spread so rapidly that there are not sufficient trained workers to care for the instruction. The Malden plan is the most completely organized of these experiments. Most of the plans in vogue are utilized only by the Protestants, but the Gary plan is used by the Catholics also. The Delaware, Ohio, plan makes possible the participation by Catholics, but they have preferred to use their local parochial schools instead.

[13] Reed College Record, No. 34, pp. 9–28, 46–53.

[14] Athearn, W. S., "A National System of Education," Ch. 5 (Malden plan).

THE LABORATORY SCHOOLS OF THE SCHOOL OF EDUCATION OF THE UNIVERSITY OF CHICAGO

The University Elementary School was started about 1896. It formed from the outset a laboratory for the school of education. Under the guidance of Dr. John Dewey it became known as one of marked experiments in elementary schools. It aimed to bring the child, school, home and community into intimate contact, to use history, science and art as positive educational factors, to teach the usual subjects in an informal procedure which should grow out of the child's every-day experience, and to provide individual attention for the children.[15] This has been the more famous of the laboratory schools. At present the Elementary School includes a Kindergarten and six grades.

The University High School had its origin in the need for a laboratory school for secondary education. Both schools have been used as schools for supplying supervised student-teaching as well as being experiments themselves and providing the laboratory for other types of experiments. Under the management of the present Director, Professor Chas. H. Judd, the attempt is being made to decrease the supervised student-teaching and to make both schools experimental schools for other types of experiments. Many of the valuable studies in education owe their possibility to these schools, and they are counted as one of America's most important and valuable laboratories in the field of education.

THE EXPERIMENTAL SCHOOLS OF TEACHERS COLLEGE, COLUMBIA UNIVERSITY

By far the most outstanding example of

[15] Dewey, J., "School and Society," Lecture IV. (Revised edition).

experimental schools is a group of schools directed by Teachers College, Columbia University. Teachers College was founded in 1888 and from the 1890's has been a means of encouraging the application of experiment to the study of education. The college itself is the most courageous and outstanding experiment for the professional study of education in the world and its influence is world-wide. At the present time, it has the following schools: Horace Mann School for girls, Horace Mann School for boys, the recently established Lincoln School, and had for many years very effective relations with the Speyer elementary school, which it originated and which is now a part of the New York City school system. The Horace Mann schools have not adhered strictly to the original purpose of being experimental and being laboratories for experiments, but in recent years have tended to become modern elementary and secondary schools for city children. Even under such conditions they still provide most excellent laboratories for certain types of experimentation, but that they are now what would be called outstanding examples of *experimental* schools is open to question.

The Speyer School has been the medium through which many valuable contributions have been made to education. For that reason, it will receive more consideration here than other experimental schools. Concerning the school Dean J. E. Russell said:

> The Speyer School, which is a free school due to the generosity of Mr. and Mrs. James Speyer, is intended not only to complement the Horace Mann School in furnishing opportunities for practice in teaching, but also to supplement other agencies of the college in promoting research and investigation in the field of public education. The kindergarten and the elementary school will be open to college students who need criticism in teaching and class management. To this extent the school is a "practice" school, but in a wider sense it will be an experimental school. The officers in charge will be free to modify the curriculum within reasonable limits, to change the system of management and discipline as occasion may require, or to do anything that seems to promise greater efficiency in the school and better service for the community.[16]

A unique feature of the school was created by the provision made with the endowment gift "that annually two trained settlement workers shall be appointed."[17] In conformity with original purposes of the school, the record of its use since its establishment reveals the following types of contributions: First, development of school which in itself was a new type of school in that it consciously aimed to provide first and foremost to meet the fundamental needs of the community in which it was located. Second, experimental studies in methods of teaching. Third, experiments with new types of curricula. Fourth, experiments in school administration. Fifth, contributions to the practices in preparing teachers. Recently the school has become an integral part of the New York City school system, but retains certain relations with Teachers College.

The Lincoln School is the most notable recent example of an experimental school. From the descriptive booklet of the school are taken the following statements:

> There is a widespread conviction that education can be improved through the use of critical and experimental methods. The ordinary curriculum, though it already contains a considerable amount of new material derived from modern activities, still retains much that is of doubtful value. Moreover, even under relatively favorable conditions, pupils do not satisfactorily master this material, old or new. Several problems are thus presented: First, how much of the traditional material has actual educational value in modern schools; second, what new materials should be introduced into the schools and how can they be prepared for use; and, third, how can teaching methods be made more efficient and more economical? . . . In the hope, therefore, that a school created for the purpose of attacking such problems may contribute to progressive educational movements, the Lincoln

[16] T. C. Record 3: 263.

[17] *Ibid.*, 270.

school was established. In the Lincoln School the curriculum, since it is in the process of development, changes from year to year; but the purpose remains constant. The aim is to construct a fundamental curriculum which will be representative of the important activities, interests and possibilities of modern life. It is hoped that a balanced combination can be obtained which will include aesthetic, linguistic, social, industrial and scientific elements. . . . Each pupil is given opportunities to exercise initiative and at the same time is led to bear the accompanying responsibility. . . . American life is not only individualistic, but cooperative. . . . To this end cooperative efforts of various kinds have been encouraged; assembly exercises largely conducted by the pupils themselves have been instituted; boy scouts and girl scouts are given recognized places in the school activities; a school bank, a school council, a school employment committee and a school orchestra have been organized, and school publications are issued.

The school is organized on the 6–3–3 plan of grouping pupils.[18] The activities of the staff are not only those of teaching; but research experimentation is a necessary function of their position. It not only includes administrative officers and teachers, but research workers and a psychologist are members of the staff. Undoubtedly this is one of the most unique schools ever conceived, and its contributions to educational progress should be very great.

THE ELEMENTARY SCHOOL AT THE UNIVERSITY OF MISSOURI

This school began about 1907. The principal is Dr. J. L. Meriam. Dewey has described the aims of the school in the following terms:

> What would these children be naturally doing if there were no schools?
>
> They would be playing out of doors, exercising their bodies, running, jumping, throwing; they would be talking together in groups discussing what they had seen or heard; they would be making things to use in their play; boats, bean bags, dolls, hammocks or dresses; if they live in the country they would be watching animals or plants, making a garden, or trying to fish.[19]

Accordingly, the school activities are of four types, play, stories, observation and handwork. Meriam himself says that

> The most practical purpose of the elementary school is to help boys and girls to do better in all those wholesome activities in which they normally engage, quite aside from school.[20]

RECENT MISCELLANEOUS EXAMPLES AND MOVEMENTS

At Dalton, Massachusetts, Miss Helen Parkhurst began the so-called Dalton Laboratory Plan in February, 1920. Since then it has received favorable attention in England and America and is being copied to some extent.[21]

The most gigantic experiment undertaken in recent times in our public schools is the establishment of the junior high school, which is yet an experiment. Beginning about 1910, there has been a steady growth in the numbers of these schools. They are an innovation, in that they include pupils of the years seven, eight and nine of the conventional eight-four grouping of school children; that new types of curricula must be developed and used, and that supervised study, the socialized recitation, and the project method are to be generally used. Vocational and educational guidance are to receive much attention.[22]

The English Nursery School is now being watched and studied by American students. A few experiments with it have already been attempted.

The Merrill-Palmer School of Detroit aims to provide education for children of the nursery school age, and also to use such

[18] "The Lincoln School, A Descriptive Booklet."

[19] Dewey, J., "Schools of To-morrow," p. 43.

[20] Meriam, J. L., "Child Life and the Curriculum," p. 151.

[21] Parkhurst, H., "Education on the Dalton Plan."

[22] Briggs, T. H., "The Junior High School."

children as a laboratory for the training of young girls and women in the care and nurture of children.

The University of Cincinnati has made interesting experiments in cooperative schemes to secure the applied forms of training. This is especially prominent in the school of engineering and in the college for teachers. Antioch College, at Yellow Springs, Ohio, is also developing a cooperative plan analogous to the Cincinnati plan and adding some other features.

In the cities of England and some of the cities of the United States, the laboring men in their unions have severely criticized the existing schools, and have begun the development of "labor universities," in which they feel that a more sound and practical education of a general type can be provided.

THE BUREAU OF EDUCATIONAL EXPERIMENTS AND THE EXPERIMENTAL SCHOOLS LISTED BY THE BUREAU

About 1918 the idea of experimentation in education was given added tangible support by the establishment of the Bureau of Educational Experiments, with its headquarters at 144 West Thirteenth Street, New York City. The bureau collects and publishes data about experiments, encourages experimentation, has at least one school under its direction, and otherwise acts as a general clearing house for data on experimentation in education. It has a list of forty-five different schools, located throughout the country, which it considers experimental. A few of the better-known schools which are included in the list are:

Antioch College and Elementary School, Yellow Springs, Ohio.
Children's University School, West 72nd Street, New York City.
City and Country School, 165 West 12th Street, New York City.
Ethical Culture School, Central Park West, New York City.
Fairhope Organic School, Fairhope, Alabama.
The Gary, Indiana, public schools.
Lincoln School of Teachers College, Columbia University.
Merrill-Palmer School, Detroit, Michigan.
Moraine Park School, Dayton, Ohio.
University Elementary School, University of Missouri.

The city and country school is affiliated with the bureau.

THE MODERN EXPERIMENT OF PREPARING TEACHERS THROUGH SUPERVISED STUDENT-TEACHING

In Halle, as long ago as 1697, Francke established his Seminarium Preceptorium, in which teachers were prepared by actual participation in teaching. Pestalozzi's experiments at Burgdorf and Yverdon included some teacher preparation. Herbart visited Pestalozzi's schools, and later established his Pedagogical Seminaries for secondary teachers. France and Prussia in the 1800's took over the training school idea and developed the French system of normal schools and the Prussian system of teachers' seminaries. Later, Prussia added the pedagogical seminaries to some of its universities, in which an affiliated Gymnasium was the laboratory school. A standard finally established for secondary teachers of Prussia required completion of the university course, and two years, known as the Seminarjahr and Probejahr, of studying and doing teaching under criticism and supervision. Through the influence of reports on European normal schools, published in this country, and the propaganda of American educators, the system started in America was the normal school, which began in 1839 at Lexington, Massachusetts. This type of institution is now common in all our states. About 1890, a rather rapid development of similar work began in colleges and universities, the first being the University of Michigan about two decades earlier. Still more recently, three other types of institutions have appeared: The

independent teachers' college offering a four-years' course above the high school. Many of these have grown out of the normal schools. In 1918 there were 27 institutions listed as teachers' colleges; in 1920 there were 43 such institutions. The city normal school, like those at Baltimore, Maryland, and Columbus, Ohio, is the second type. The third is the county normal school like those of Ohio, Michigan and Minnesota.

All these teacher preparing institutions try to provide some laboratory facilities in which some form of participation in actual teaching is carried out. The slowest to develop this work have been the colleges and the universities. Out of about 600 institutions listed as colleges and universities by the United States Bureau of Education, the following conditions exist and have existed:

In 1908, eleven colleges and universities maintained their own laboratory schools for observation and student-teaching; 22 used local public schools for the same purposes; 14 made supervised student-teaching optional; 16 required such work; 21 did not offer such work at all.

These data apply only to the limited group of institutions included in the study made by Farrington, Strayer and Jacobs, and published by the College Teachers of Education.

In 1914–15 Mead made a study of the same group of institutions (colleges and universities) and found the following results:

117 institutions were offering supervised student-teaching; 57 owned and controlled their own laboratory schools; 60 used local public and private schools for laboratories.

Since that time, other institutions have established the work, and a fair estimate of the number at the present time would probably be 140 colleges and universities.

The teacher preparing institutions are thus very generally using some form of supervised student-teaching and some form of laboratory schools. Many of these schools are used for other purposes of the experimental type. The following are typical: (1) experiments in learning; (2) experiments in classification of pupils; (3) experiments in new curricula; (4) experiments in teaching methods. Further, many are experimenting much of the time to find new ways of preparing teachers. The plan used at the College of Teachers of the University of Cincinnati, the work done at Ohio Wesleyan University, the Directed Teaching done at the Wisconsin High School, and others exemplify this activity. These institutions, in many cases, can thus qualify as experimental schools in other activities than supervised student-teaching or other related forms of teacher-preparation. So much are these institutions imbued with the ideal of innovation and experiment that many superintendents insist that teachers shall be prepared to teach in schools "as schools now exist" and object to teachers with "new-fangled ideas" who come to them from the normal schools, schools of education and departments of education.

A Concluding Comment

This study has had limits placed upon it that precluded a close scrutiny of the underlying causes of each experiment, and the results following from it. Some things are, however, fairly obvious: First, these innovations came because of needs for betterment and the impelling desire of some people to attain to better things; second, they have usually aroused the ridicule and contempt of the conservative and do yet; third, they have been the means of making important additions to our knowledge of both the theory and the practice of education; and, fourth, they have helped us to get rid of some few of the "binding chains of tradition" which enmesh our education so strongly.

The times were never so propitious for such institutions as now, and therein lies a great opportunity and a danger. The op-

portunity is for discovery of truth and the application of new found truth to the solution of problems. The danger is that of which the conservative always reminds us: "You are destroying our Gods and replacing them with new and unknown idols." But it is a real danger. The good which has been accomplished must be preserved. It is, however, and always will be, the lesser danger. It is more easy to keep things as they are than to change. Where we find one fruitful searcher for new truth, we find a thousand who want to keep the old with all its good and all its evil and errors.

ARTHUR RAYMOND MEAD
OHIO WESLEYAN UNIVERSITY
DELAWARE

A TESTED METHOD OF USING TESTS FOR VOCATIONAL GUIDANCE[1]

MENTAL tests have been suggested and sometimes tried in various ways as an aid in vocational guidance. However, the suggestions are often more speculative, though attractive, than they are practical. This paper is a brief report of a method for using tests which has given positive results in helping solve a practical problem.

The Westinghouse Electric and Manufacturing Company each year employs about three hundred engineers who have just been graduated from technical schools and colleges. All these men have had practically the same training; but they must be differentiated and placed in different lines of engineering according to their special interests and aptitudes. The aim is not to discover which engineers are best for any particular kind of work; for a few very capable men might be best in all lines; but the aim is to discover in what line of work each engineer will function most efficiently and satisfactorily. The practical problem is to determine methods and means for selecting and placing young engineers in the type of work which they can do best.

Other means of differentiating these engineers having been evaluated and proven inadequate, a test to determine special capacities was constructed in two parts. Part I was to indicate sales capacity, and Part II was to indicate design engineering capacity. After this test had been tried out on other groups and revised several times, it was finally given to 30 design engineers and 59 sales engineers.

Now the practical purpose of the test is to separate the men who are to be sales engineers from those who are best fitted to be design engineers. A single score in a sales test or in an engineering test could not be relied upon to place the men; for the good all-around man would do best in both kinds of work, and best in both kinds of tests. However, some measure of the kinds of capacities or the differences in intelligence could be obtained by subtracting the score of each man in one test from his score in the other test. The practical use of this method is to rank the men according to the algebraical differences between their respective scores in Part I and Part II, and then count down the list until the desired number of sales engineers is obtained. That is, the man who did well in Part I, but poorly in Part II, would rank high in the list according to the algebraic difference between his score in Part I and his score in Part II; and he would be chosen for sales engineering. This method, theoretically, selects the men who can function most efficiently as sales engineers, and leaves those who can function most efficiently as design engineers.

To check this method of classifying and

[1] The first part of this article is an abstract of part of a much longer report, which is published as Psychological Monograph No. 138, Personnel Selection of Graduate Engineers, Psychological Review Company, Princeton, New Jersey. In addition, the present article includes a supplementary report prepared after the tests and the method of using them have been in use for two years.

ranking the thirty design engineers and the fifty-nine sales engineers, the score of each individual for Part II was subtracted from his score in Part I, both scores being in terms of their respective standard deviations. This gave positive results in separating the sales engineers from the design engineers. These results are shown graphically in Diagram 1. Considering the diagram as a fourfold table, this method of interpreting the results differentiates the men so that of those classed as sales engineers, 79 per cent. are correctly so classed; and of those classed as design engineers, 49 per cent. are correctly so classed. The correlation between the test results treated in this way and the actual classification was $r_{tv} = +.45$. A similar and simpler method of treating the results is to transmute the raw score into percentile ranks, and subtract the percentile rank in Part II from the percentile rank in Part I.

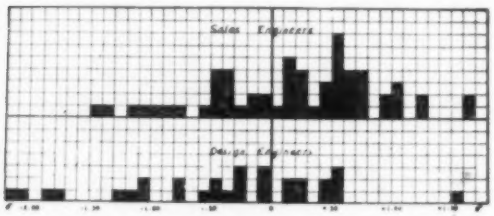

Diagram 1. Differentiation Obtained by Subtracting Scores in Part II from Scores in Part I in Terms of Standard Deviations.

Considering the diagram as a four-fold table, the engineers indicated by the test as sales engineers are 79 per cent. correctly so classified; and the engineers indicated by the test as design engineers are 49 per cent. correctly so classified. $r_{tv} = +.45$.

A still better method of dealing with two tests or two parts of a test to differentiate special capacity is to divide the score in Part I by the score in Part II for each individual. This is the method which is the simplest, and it is the one which gives the most efficient use of the test as a means of differentiating the men. This method magnifies the differences among the individuals which are indicated by the fact that the ability of each individual to deal with Part I differs from his ability to deal with Part II. That is, the ratio or quotient of a man's score in Part I divided by his score in Part II changes geometrically instead of algebraically as this man's special ability is greater or less. This probably makes the results agree more nearly with the practical considerations; for the extreme cases of special ability should be markedly differentiated. The genius is valued probably far greater than an actual measurement of capacity on a linear scale would indicate. The results of dealing with the scores by this method are presented graphically in Diagram 2. Considering the diagram as a fourfold table, we have the engineers differentiated as follows:

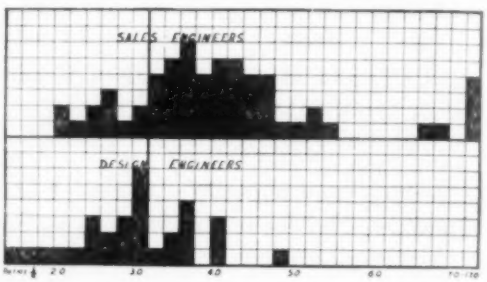

Diagram 2. Differentiation Obtained by Dividing Scores in Part I by Scores in Part II.

Considering the diagram as a four-fold table, the engineers indicated by the test as sales engineers are 81 per cent. correctly so classified; and the engineers indicated by the test as design engineers are 63 per cent. correctly so classified. $r_{tv} = +.70$.

Assuming that if an engineer's score in Part I of the test is more than 3.2 times his score in Part II, he is a sales engineer, and that if his score in Part I is less than 3.2 times his score in Part II, he is a design engineer or a pure type of engineer, this test divides the engineers so that 81 per cent. of those above this critical ratio (Part I at least as much as 3.2 times Part II) are sales engineers; and 63 per cent. of those below it are design engineers or of a purely engineering type. The correlation between

the test results treated in this way and the actual classification of the men was $r^0 = +.70$.

The previous practice has been to place the engineers according to their interes s, but often the graduate engineers could not decide themselves what work they would prefer. A test or scale of interests was prepared to determine the ratio or per cent. of interest in the various lines of work. The essential feature of this test was to request the subject to check a list of names of occupations with a plus or minus according as he would like to follow or would not like to follow the various occupations. In various trials of this test, design engineers, sales engineers and insurance salesmen showed a definite tendency to like or be interested in occupations which in nature of work were similar to those occupations in which they were already successful. The kind of occupation which they thought would give them the greatest satisfaction to follow was a significant criterion of the kind of work in which they could be and were already successful. Assuming that we did not know the actual occupations of the engineers, those engineers which this test of interests alone would select for sales engineering, would be 89 per cent. correctly placed or classified; and the men which this test of interest selected for design engineering would be 69 per cent. correctly placed or classified. This is shown graphically in Diagram 3.

The correlation between the results of the test of interests and the results of the test of special capacities is $r = +.50$. This tends to show not only that there is high correlation between interests and special ability, but also that the test of interests and the test of special capacity give reliable results.

During the two years following this first study in August, 1920, many additional graduate engineers have been tested as they were employed by the firm. Also, the later records or careers of the men tested have been followed up and checked against the predictions of the tests. Of 58 graduate engineers who took the test of interests in 1920 and 1921, the later assignment and success were followed up in May, 1922. This later check-up shows that this test of interests, alone, would have placed 85 per cent. of these men in the line of work in which they are now successful.

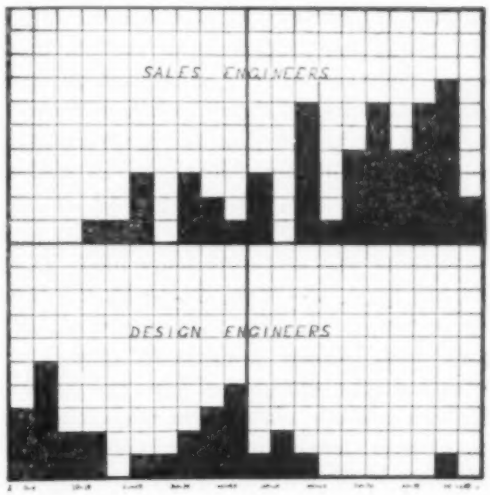

Diagram 3. Percentages of Choices Showing Preference for Occupations Requiring Sales Type of Person.

Considering the diagram as a four-fold table, the interest test (Record of Interests) places correctly eighty-two per cent. of the engineers. $r_{tv} = .84$.

We have the data on 121 graduate engineers who took the special engineering test, Parts I and II, in 1920 or 1921. This special ability test classified 68 per cent. of the men as they were later segregated by the executives of the company after they had supervised the work of the engineers for a few months. We have been able to follow up the later success of 76 of these men; and we find that the test alone would have placed 74 per cent. of these men in the line of work in which they are now successful. These two facts together, that is, the fact that the earlier classification of the men placed 68 per cent. of the men in agreement with the predictions of the test,

and the fact that a later classification placed 74 per cent. of the men in agreement with the predictions of the test indicates that the accuracy of the test becomes more evident the longer the men have been at their work, and thus the more accurate the criterion of their success is. Several of the men had been released or had left the company. The data that we have indicates that those who left were more likely to be among those who were shown by the tests to be misplaced. We have record of only two men whose assignment had been changed from what it had been at first; but in both cases the change was from disagreement with the test of special capacity and the test of interests to agreement with the indications of these tests, although the indications of these tests were not the cause of the change of assignment.

There are 41 men, for whom we have criteria of later success, who were classified as sales engineers or as design engineers by both the test of special capacity and the test of interest. Thirty-seven of these men, or 90 per cent., were classified by both tests alike for the same work in which they are now successful.

According to the data that we already have, our conclusions are that these aids for placing engineers are proving to have a practical degree of reliability, and that the method or general principles upon which the practice is based may be accepted as sound. The Westinghouse Electric and Manufacturing Company is now using these tests as definite practical aids in classifying and placing the graduate engineers as they come from the technical schools and colleges.

BRUCE V. MOORE
ASSISTANT PROFESSOR OF PSYCHOLOGY,
PENNSYLVANIA STATE COLLEGE

EDUCATIONAL EVENTS

COMMITTEE ON EDUCATION OF THE AMERICAN FEDERATION OF LABOR

AFTER 15 months of investigation the Committee on Education of the American Federation of Labor has presented its report dealing with social studies in the public schools. The chairman of the committee is Matthew Woll, president of the International Labor Press of America.

The report declares that

> In recent years there have been well-authenticated reports that selfish interests are seeking to use the public schools for propaganda purposes, are attempting an indefensible censorship of the utterances of teachers, and are undermining the dignity and independence of the teaching profession. Such activities strike at the very heart of successful democracy and tend to tear down the usefulness of the structure of public education which the members of organized labor in common with other public-spirited citizens have striven to build up.

A search is made to fix the responsibility for this "attempt to restrict public school teaching, which is both menacing and undeniable," and "much of the pressure," it is found, "has come from local bodies, such as chambers of commerce, rotary clubs and the like." The report blames, as an original impetus, "the wave of hysteria against 'radicalism' which passed over the country during and immediately after the war, spread indiscriminately in the press, pulpit and other organs of expression, and directed even against ordinary liberal movements and organized labor," and, second, the calculated propaganda of national organizations.

After commenting on the comparatively small number of students taking the social subjects as electives, and on the fact that nearly all the instruction in these courses is still concentrated in the later years of high schools, the report deplores the delay of instruction in subject-matters of such fundamental importance until the last two years of high school—which means, since a large number of students drop out before graduation, that many never benefit by these courses. "Thus," urges the report, "it appears that there is a very decided need for the immediate reorganization of the curricula of most of our junior and senior high schools, so as to provide adequate opportunity for instruction in these important subjects."

WORLD ESSAY CONTEST FOR 1923–24

THE American School Citizenship League has announced the subjects and terms of the World Essay Contest for 1923–24. This competition,

open to students of all countries, is for three prizes of $75, $50 and $25 for the best essays in each of two sets. The subject for the competition open to students in normal schools and teachers' colleges is "Methods of promoting world friendship through education." The subject assigned for seniors in secondary schools is "The organization of the world for the prevention of war."

The contest will close June 1, 1924. The United States judges are: Milton Bennion, dean, School of Education, University of Utah; M. L. Brittain, president, Georgia School of Technology; Miss Sarah A. Dynes, Sun Prairie, Wisconsin; Harry A. Miller, Central Michigan Normal School, Mt. Pleasant, Michigan; J. B. Brown, Tennessee State Department of Public Instruction; Miss Annie C. Woodward, High School, Somerville, Mass.; M. P. Shawkey, president, Marshall College; John W. Hall, dean, School of Education, University of Nevada; A. Duncan Yocum, School of Education, University of Pennsylvania.

Each essay must be accompanied by a topical outline and a bibliography with brief notes on each book. Essays must not exceed 5,000 words, and must be written, preferably in typewriting, on one side only of paper 8½ x 11 inches with a margin of at least 1¼ inches. Manuscripts not easily legible will not be considered.

The name of the writer must not appear on the essay, which should be accompanied by a letter giving the writer's name, school, and home address, and sent to Mrs. Fannie Fern Andrews, secretary, American School Citizenship League, 405 Marlborough Street, Boston 17, Mass., not later than June 1, 1924.

LESSONS ON HIGHWAY SAFETY

MISS TERESA M. LENNEY, a teacher in the New Rochelle, New York, public schools, contributed the best practical lesson on highway safety entered in the 1922 national contest, according to announcement by the Highway Education Board. More than 60,000 elementary school teachers competed.

Judges who reviewed the lessons were Mrs. Louis N. Geldert, Washington, D. C., national president, League of American Pen Women; Dr. A. B. Meredith, Hartford, Conn., commissioner of education for Connecticut, and Dr. Ernest Hamlin Abbott, New York City, editor of *The Outlook*. They served at the request of the United States Commisisoner of Education, Dr. John J. Tigert.

Second national honors in the 1922 lesson contest were awarded the lesson plan by Miss Henrietta M. Hornberger, a teacher in Pueblo, Colorado, schools, who will receive a check for three hundred dollars. Miss Clyde V. White, Briggs School, Portsmouth, Virginia, is the recipient of a check for two hundred dollars, a token of third national honors awarded for the lesson she entered in the contest.

Miss Lenney's reward is five hundred dollars in cash and a trip to Washington with all expenses paid, her prizes the gifts of the National Automobile Chamber of Commerce.

Altogether more than one thousand dollars is thus given by the automotive organization to stimulate interest and concern in the problems of highway safety, aside from a more substantial sum, approximately $4,500, given children for essays on the subject. The contests, which were renewed with the same inducements in 1923, were conducted under the auspices of the Highway Education Board, with the active cooperation and support of state departments of education and school officials generally.

Four other teachers were awarded honorable mention. They are Miss Geneviève L. White, State Graded School, Mazomanie, Wisconsin; Miss Josie Jaynes, Goodson Rural School, Hughes Springs, Texas; Miss Bertha E. Wienbar, Conway Springs Graded School, Conway Springs, Kansas, and Mr. M. K. Tschirgi, Sheridan, Wyoming. They will not receive awards, but their lessons were considered as ranking next to those so designated by the committee.

Miss Lenney's lesson was taught to seventh grade pupils as a part of a lesson in civics. She obtained a portion of her material from actual observations with her class at an "intersection of streets where traffic was heavy." "The streets," she says, "were used by a great variety of moving vehicles and various classes of people. The careless, reckless, heedless, ignorant behavior of the average person on the streets convinced the pupils that traffic laws must exist; that they must be known; that they must be enforced, and that accidents are avoided with ease when a few simple traffic rules are strictly adhered to."

VISIT TO EUROPE OF STUDENTS OF EDUCATION

STUDY of the educational institutions of Europe under the personal supervision of Professor Elmer E. Jones, director of the school of education of Northwestern University, is to be undertaken the coming summer by a class of American students. Well-known educational experts in Europe have been communicated with and have agreed to lecture to the visiting students.

This travel course of study of European schools, colleges and universities is open only to seniors or graduate students who have completed a B-course in education. If the trial course is successful, another party of students may be taken over the following year. As no exhaustive report as to the condition of European schools, or of their new work, has been made since the world war, Dr. Jones believes that important information may be secured.

It is proposed to visit London, Brussels, Paris, Munich, Zurich, Rome and possibly one or two other great educational centers of Europe. The party will start from New York on or about June 20. School teachers in the party are planning to lecture on shipboard, both going and returning. Three hours credit in education at Northwestern University will be given to each member.

The first objective is London, where two weeks will be devoted to the study of English schools. In London the lectures will be at the University of London and Percy Nunn, professor of education in the university, has agreed to plan the course. There will be at least thirty lectures in London and in the afternoons and over week-ends points of interest will be visited, including the home of Shakespeare. It is hoped to secure Oxford and Cambridge professors to assist in directing the English course.

The next stop will be in Brussels where Professor De Croly, psychologist of the University of Louvain, will sponsor the investigation of Belgium's educational work. Paris is the third stop. The French national commissioner of education has written an indorsement of the plan and has agreed to arrange the lecture program for France. The fourth stop will be at Munich where Dr. Kuerschsteiner, who has lectured extensively in America, has given assurance of his full cooperation. He will provide speakers on educational work throughout Bavaria.

At the University of Zurich it is planned to study Switzerland's schools. From Zurich the party will proceed to Rome, where Miss Campanella, an assistant superintendent of Roman schools, who speaks English fluently, will organize the course. It is expected that the party will sail from Naples for the United States late in August.

SCHOLASTIC ELIGIBILITY AT THE UNIVERSITY OF PENNSYLVANIA

AMONG the readjustments in the supervision of undergraduate activities which the university administration has effected within the last year, none is more important than that dealing with the eligibility of students for participation in athletic and non-athletic affairs. In the past there has been considerable confusion owing to the existence of a double standard of eligibility rules, one for athletic and another for non-athletic activities, together with a total lack of uniformity respecting the definition of general probation by different departments of the university. To correct this the board of deans at the suggestion of Provost Penniman proposed to the Board of Trustees that all eligibility matters be handled by a sub-committee of their board, thus relieving the council on athletics, as well as a similar committee for non-athletic activities, of this particular duty.

The board of trustees immediately accepted the suggestion of the board of deans in accordance with the following resolution:

Resolved: That the Provost be and is hereby requested to appoint a committee of not less than three members of the Board of Deans which is to be known as the Eligibility Committee, which shall have all power to decide and act upon all cases of students desiring to represent the University in extra curricula activities so far as their scholastic standing is concerned.

Before appointing this sub-committee the Board of Deans agreed upon the following six basic conditions for the determination of scholastic eligibility.

1. That there shall be a single standard of scholastic eligibility for all student activities.

2. That good standing in 80 per cent. of a student's work should constitute the minimum scholastic eligibility.

3. That in determining scholastic eligibility on this percentage basis, all conditions standing against a student should be included in the reckoning.

4. That action should be taken by the board of deans to devise and put into effect a uniform rule in regard to general probation to be observed in all of the schools of instruction.

5. That there should be one authority, preferably a small committee, to determine eligibility. This committee shall be appointed by the Provost and shall be responsible to the Provost and the Board of Deans.

6. No student on general probation shall be permitted to represent the university in any activity.

The eligibility committee consists of Dean Robert B. Burke, of the College, chairman; Dean Emory R. Johnson, of the Wharton School, and Dean Frazer, of the Towne Scientific School. William Du Barry, assistant to Provost Penniman, was made secretary of the Committee, while Vice-Provost J. Hartley Merrick was made a member ex-officio.

RESIGNATION FORM THE GENERAL THEOLOGICAL SEMINARY

DR. DICKINSON SERGEANT MILLER, who formerly taught philosophy at Harvard and Columbia universities, has resigned as professor of apologetics at the General Theological Seminary, New York City.

In a formal statement, Dr. Miller thus states his position:

In view of reports in the press, an explanatory statement is called for at this time in regard to the resignation, which will take effect at the close of this academic year (in May), of my professorship at the General Theological Seminary.

When the Bishops' Pastoral Letter was issued I had just received and was considering a very attractive call to Smith College to undertake work of essentially the same character as I have at present. I felt, however, and still feel, an attachment to the General Seminary and recognize the importance of its work.

The Pastoral Letter seemed, at first, by itself to simplify my decision by compelling me to leave the general seminary of the church, but finally it became only one, though a very powerful, consideration amongst those that decided me.

Precedents in the church had clearly established liberty of interpretation in regard to certain articles of the creed. The Pastoral Letter, with its imputation of dishonesty, has the effect of forcing those clergymen (or a sufficient number of them) who avail themselves of this liberty and accept certain articles in a symbolic, not a literal sense, to speak their minds with emphasis, and explain their position in order to sustain these precedents.

Unhappily it causes them to do so at the cost of imperilling, at this difficult period of intellectual transition, the very objects, spiritual and moral, which are the whole aim of their work. For this it would appear to be not they, but the House of Bishops who are responsible. If I stayed at the seminary after their pronouncement and my own protest I should sow dissension, which in the interest of my principal teaching I have sedulously sought to avoid. It seemed proper to take this excellent opportunity to go elsewhere.

RELIEF FOR GERMAN PROFESSORS OF PHILOLOGY

THE Philological Club of the University of North Carolina, at a meeting on December 10, passed the following minute:

The members of The Philological Club of the University of North Carolina, believing that large numbers of their German colleagues will suffer for the necessities of life during the coming winter, and actuated solely by the motive of contributing what they can to the salvage of human vitality and intellectual production in a class that during times of need suffers the greatest privation and receives the least aid, hereby authorize their president to appoint a committee of three, whose duty will be to secure from each member of the club a pledge for whatever amount he will give, to be divided into four installments and collected at regular intervals during the remainder of the academic year, and forward the same to their German colleagues in the following manner:

The committee will select from the faculties of German Universities a professor of German, a professor of Romance languages, a professor of one of the classical languages, and a professor of English who may be known either personally or by reputation to members of the club as willing to undertake the distribution of the club's gifts; the committee will forward one collection to each of the professors chosen, with the request that he put the same to the best use in relieving whatever want appeals to him as most urgent among teachers of his subject personally known to him, retaining for himself, if he so desires, as much as one third of the amount sent him.

Realizing that their contributions will go but a very little way towards alleviating a great deal of

suffering, the members of the club hereby instruct their committee to ask the editors of whatever publications the committee may select, to publish these resolutions, in the hope that the club's procedure in this instance may encourage like actions being taken by similar organizations throughout our country; and furthermore the club instructs its committee to secure the promise of the most available among those members of the club who will attend the approaching annual meeting of The Modern Language Association to bring a similar resolution before that body.

EDUCATIONAL NOTES AND NEWS

THE American Association for the Advancement of Science and some thirty affiliated scientific societies are meeting at Cincinnati from December 27 to January 4 under the presidency of Dr. Charles D. Walcott, secretary of the Smithsonian Institution. The opening session was held on Thursday evening, December 27, when the retiring president, Professor J. Playfair McMurrich, anatomist of the University of Toronto, addressed the association.

THE Section of Education of the American Association for the Advancement of Science holds sessions from December 27 to 29 under the chairmanship of Professor H. W. Holmes. The series is open on Thursday afternoon with a symposium of papers on the scientific aspect of education in general, including a historical review of the development of educational science. The Friday forenoon session will consider scientific methods in elementary, secondary and college education, in teacher training and pre-school training. Professor Bird T. Baldwin's address, as retiring vice-president for the section, was given on Friday afternoon. A Saturday forenoon session is planned, with invitation papers on the scientific study of educational finance, school-building, supervision, instruction and educational administration.

THE Section of Geology and Geography of the American Association for the Advancement of Science celebrated at Cincinnati the seventy-fifth anniversary of the association, in the foundation of which the earlier geologists played a prominent part. The section secured the consent of Professor T. C. Chamberlin, who recently celebrated his eightieth birthday, to speak on the subject "Seventy-five years of American Geology." Professor William Morris Davis, of Harvard University, gave an address on "The Development of Geography in the United States," and Professor H. L. Fairchild, of the University of Rochester, spoke on some of the early geologists.

THE American Psychological Association meets at Madison, Wisconsin, under the presidency of Professor Lewis M. Terman, of Stanford University, on December 27, 28 and 29.

THE American Mathematical Society, of which Professor Oswald Veblen, of Princeton University, is president, is meeting in New York on December 27, 28 and 29. The Chicago section of the association and the Mathematical Association of America, of which Professor R. D. Carmichael is president, meets at Cincinnati in affiliation with the American Association.

NELLIE F. CORNELL, principal of School 24, Rochester, N. Y., observed her eighty-fourth birthday anniversary on October 11. On January 1, she will begin her sixty-second year as a public school teacher. Miss Cornell became principal of School 24 in September, 1877. She is the first and only principal of the school.

EARLE U. RUGG has been appointed professor of education at the Colorado State Teachers College, at Greeley.

JOHN ROSSMAN, formerly director of secondary education in the public schools of Fort Smith, Ark., is now assistant superintendent of schools at Gary, Ind.

DR. MARVIN F. BEESON, director of cooperative extension service for teachers in Western Colorado, for the University of Colorado, Colorado State Teachers College, and Western State College of Colorado, has become director of education in San Diego State Teachers College of California.

DR. HERBERT A. TOOPS, who has been assistant to Dr. Thorndike in the Institute of Educational Research, Teachers College, has accepted a position in the Bureau of Research at Ohio State University.

EDWARD W. BOSHART, former principal of the West Technical High School in Cleveland,

Ohio, and of the High School in Binghamton, New York, will give courses at the University of Chicago in the administration and supervision of vocational education during the Winter and Spring Quarters. This work has previously been given by Emery T. Filbey, associate professor of industrial education and dean of University College, who will now devote his time to the administration of the Institute of Meat Packing which is being organized at the University of Chicago in cooperation with the Institute of American Meat Packers.

DR. IRWIN ROMAN, of Northwestern University, has been appointed associate professor of mathematics at Vanderbilt University.

MISS CORA C. COLBURN, assistant professor of institution economics in the College of Education of the University of Chicago, has been given six months' leave of absence. She has accepted the invitation of the Yale Corporation to go to New Haven for that period to make and carry out plans for the reorganization of the Yale Commons.

THE Laura Spelman Rockefeller Memorial, by a special grant of $10,000 to Teachers' College, has made possible research with children of pre-kindergarten age. This work is under the division of school experimentation of the Institute of Educational Research, of which Dr. Otis W. Caldwell is director, with Professors Patty S. Hill, Mary Swartz Rose and E. L. Thorndike acting as advisers and Dr. Bess V. Cunningham as executive secretary. Studies in nutrition are conducted at the Manhattanville Nursery of New York City under the direction of Professor Rose, with Miss Gertrude A. Preische, as associate in nutritional research. The psychological experiments are conducted at the Hecksher Foundation for Children. Mrs. Mary Cover Jones, who has been appointed associate in psychological research, is to carry on the work there.

PROFESSOR GODFREY THOMSON, visiting professor from Armstrong College, Durham University, Newcastle-on-Tyne, England, is conducting several courses in educational psychology this year at Teachers College, Columbia University. Professor Thomson is a specialist in the field of educational tests and measurements.

A. FOWLER, professor of astrophysics, Imperial College of Science and Technology, and G. I. Taylor, fellow and lecturer in mathematics, Trinity College, Cambridge, have been appointed Yarrow Research Professors of the Royal Society under the gift of £100,000 made by Sir Alfred Yarrow.

PROFESSOR E. STRÖMGREN, of the University of Copenhagen, has been called to a professorship of theoretical astronomy at the University of Berlin.

DR. G. HERGOLTZ, of the University of Leipzig, has been called to a professorship of mathematics at the University of Munich.

PROFESSOR ARNOLD THEILER, director of the Bacteriological Institute of Pretoria, has been made a doctor of philosophy, *honoris causa*, by the University of Berne.

PROFESSOR ALEXANDER MAIR, of the University of Liverpool, has been elected president and Dr. Betts Taplin vice-president of the newly organized Liverpool Psychological Society.

PROFESSOR J. C. MANRY has returned to Ewing Christian College, Allahabad, India, after completing his work for the doctor's degree in psychology at the University of Iowa. Dr. Herbert G. Kribs, late of the department of zoology of the University of Pennsylvania, has joined the same institution as professor of zoology. Walter D. Kline, Ph.D. (Yale, '23), becomes professor of chemistry.

JOHN MASEFIELD has been appointed by the vice-chancellor of Oxford University to deliver the Romanes Lecture on June 4. The subject will be "Shakespeare and spiritual life."

ERNEST BERNBAUM, professor of English at the University of Illinois, who is spending his sabbatical year abroad, addressed the English Association of Great Britain, at Cheltenham College, November 24. He spoke on "The masterpieces of historical romance."

DR. F. N. COLE, professor of mathematics in Columbia University, has been granted leave of absence for the second half of the present academic year.

PAUL F. CLARK, Ph.D., professor of medical bacteriology at the University of Wisconsin, has

returned from a semester's leave of absence. Dr. Clark served as delegate at the Pasteur centenary in Paris.

PROFESSOR JOHN MATTHEWS MANLY, head of the department of English at the University of Chicago, is to deliver a Lowell Institute course of lectures in Boston during the last week of January and the first week of February. His subject for the series of lectures is "Some New Light on Chaucer."

THE death is announced of Dr. Junius Jordan, formerly Arkansas state superintendent of public instruction, and for the last twenty-one years superintendent of city schools in Pine Bluff.

"THE VIRGINIA," a $100,000 community house erected by Ellen Browning Scripps, '59, of LaJolla, Calif., in memory of her sister, Virginia Scripps, who died in April, 1921, was dedicated at Rushville, Ill., October 12. "The Virginia" is situated on an 80-acre farm long in the possession of the Scripps family, which was left to the city by Miss Virginia Scripps and James E. Scripps, the former having the larger interest. The farm has been made into a park and community playground under a $16,000 development fund donated by the Misses Virginia and Ellen Browning Scripps and E. W. and James E. Scripps. A nine-hole golf course has been laid out, a lake has been made and driveways and playgrounds constructed. Robert Scripps, of Cincinnati, O., acted for Miss Ellen Scripps in presenting the community house to the city. A memorial tablet was unveiled by Mrs. Rex Clark, of Pasadena, Calif., daughter of the late James E. Scripps.

THE New York City Board of Education, at a recent special meeting, awarded contracts amounting to more than $2,500,000. The contract for the new James Madison High School in Avenue P, at Twenty-sixth Street, Brooklyn, was awarded to the Turner Construction Company, the lowest bidder, for $2,045,000. The building is to be completed in fifteen months. The George Colon Company won the contract for the addition to P. S. 36, the Bronx, Black Rock Avenue near Casle Hill Avenue, on a bid of $347,000. The contract for heating and ventilating the Girls' Commercial High School was given to the Almirall Company on a bid of $229,388.

MARY COUTS BURNETT, widow of the late Captain Burk Burnett, has conveyed her entire estate to Texas Christian University of Fort Worth. One fourth of the income from the estate will be turned over to the university during the life of Mrs. Burnett and the entire income after her death. The estate is valued at $4,000,000 and includes, besides various ranches and city blocks, oil lands which have been tested but not developed which are thought to have a possible value of $10,000,000. With the exception of the original endowment of the Rice Institute, this is the largest single gift ever made to education in the southwest. Texas Christian University is a standard college with no graduate school and no professional schools. The medical department was closed in 1918 and the law department in 1920. In June of 1923, the institution celebrated its fiftieth anniversary. Before the Burnett gift, the endowment of Texas Christian University was only $800,000 and the main support has come from voluntary taxes of the Christian churches of the southwest.

THE council of the University of Birmingham has received through Mr. Neville Chamberlain an offer of £20,000 from Mr. Henry Barber, of Culham Court, Henley-on-Thames, and for many years a citizen of Birmingham, to endow a professorial chair of law in the university.

THE residue of the estate of the late Sir Albert John Hobson, amounting to £100,000, is bequeathed to the University of Sheffield, England.

THE thousand-dollar prize secured to the University of California from the Universal Pictures Corporation by the success of William Elwell Oliver, a graduate student, in the Laemmle Scholarship contest for the best scenario written by a college student, will be invested. The income will be available for the purchase of books for the University Library bearing upon the drama.

A NEW prize of $250, to be known as the English Prize for high distinction in English studies, is announced by the Department of English at the University of Vermont, and will be awarded for the first time in the spring of 1925. The successful candidate will receive not only the money prize, but also a certificate inscribed and signed by the president and the

chairman of the English department. It is also provided that the recipient of this prize shall be graduated with highest honors in English and that, if he enrolls the ensuing college year in the university for graduate work in English, he shall receive a research fellowship. This new prize will be awarded to members in full regular standing in the senior class each year. The purpose is to "raise the standard of classroom exercises and to stimulate a more lively interest in the study of English generally."

CONSIDERABLE increases in expenditures by eleven cities, having populations of 300,000 to 500,000, for the maintenance and operation of schools and for permanent school improvements, have been made public by the Department of Commerce. The greatest advances were reported by New Orleans, which increased its expenditures 204 per cent. for maintenance and operation in 1922 over the 1917 level and 1,620 per cent. for permanent improvements. The per capita cost to New Orleans, however, was the lowest of any of the cities listed, being $8.50 for maintenance and $1.29 for improvements, as of June 30, 1922, as compared with $2.98 and 8 cents, respectively, June 30, 1917. Milwaukee was listed as increasing its expenditures in the five-year period 104 per cent. for operation and 124 per cent. for improvement, Washington 92 per cent. and 223 per cent., Newark (N. J.) 104 and 207, Cincinnati 100 and 125, Minneapolis 74 and 655, Kansas City 131 and 882, Indianapolis 149 and 873, Seattle 103 and 169, Rochester (N. Y.) 194 and 947, and Jersey City 88 and 11 per cent.

THE school teachers of Medford, Mass., have petitioned the school committee for an increase of salary. The petition states that twenty-four communities in Massachusetts are paying higher salaries than Medford, and that many of the teachers are receiving offers of higher wages elsewhere. The elementary and junior high teachers, numbering about 200, ask for a flat increase of $100 each, making the maximum for the former $1,600, and the latter $1,700. The high school teachers ask for a $200 increase, one half of which to start in September, 1924, and the remainder in September, 1925. The present maximum at the high school is $2,300 for the male teachers and $1,700 for the women.

A SPECIAL correspondent of the *Christian Science Monitor* writes: "Newspaper editors of North Dakota considered the recent convention of the North Dakota State Education Association real news. A check-up of space devoted by the leading papers of North Dakota to the convention as compared to other news, and particularly to the state high school championship football game, which is to the State what a 'Big Ten' Conference game is to many other western states, shows that education led in the amount of space. The Bismarck *Tribune*, published in the state capital, where the educators met, devoted 153 inches, or more than seven columns, to the education association convention in an eight-page edition on November 23, and on the same day devoted 25 inches to the state high school championship game, played there that day. The same newspaper, on November 22, devoted 120 inches to the education association convention and 22 inches to a football game. The Fargo *Forum* on each of the two days printed almost three columns of convention news, while it gave less than one column to the football game. The same was true of the Grand Forks *Herald*. The Mandan *Daily News* 'played' the educational news as secondary only to the German crisis, using a 'streamer' headline on the convention. The Grand Forks *Herald* used a 'streamer' on the convention in one edition. There was no sensational news emanating from the education convention. The resolutions, which were featured prominently, asked that the offices of superintendents of schools of state and county be taken out of politics and that a higher standard be maintained in all schools and in the requirements for teachers."

CHARLES H. BURKE, commissioner of Indian affairs, states in his annual report, just issued, that the government's Indian policy during the coming year will again emphasize the educational phase: As a result of the intensive campaign in 1923, attendance at government boarding and day schools totalled 24,145, or nearly 2,000 more than the normal capacity, and the number of eligible children not in school was reduced by 5,000. Commissioner Burke's recommendations include additional sanatoria to help in overcoming disease, and a hospital for crippled children. The Indian population in the

United States, the report states, is now 344,303, an increase in ten years of 13,664. The total value of individual and tribal property is estimated at $1,010,870,519, an increase in ten years of $343,939,256. Allotments of land were made in the last twelve months to nearly 4,000 Indians, comprising 1,904,000 acres.

SENATOR COPELAND, of New York, introduced a resolution in the United States Senate last week calling for an investigation by the Senate Committee on Education of so-called "diploma mills." Under the resolution the committee would be asked to learn whether any branches of the federal government are employing graduates of the "diploma mills"; whether local requirements regarding registration of medical practitioners are being observed, and whether the Oriental University, Washington, D. C., which has been barred from using the mails, was a "diploma mill." Senator Copeland said it had been reported to him that, owing to the activities of the fake universities, American medical graduates in foreign countries are being discriminated against.

AT the convocation of the University of Chicago on December 18, degrees were conferred upon 152 candidates. These included 84 bachelor's degrees in the College of Arts, Literature and Science, 16 in the College of Education and ten in the School of Commerce and Administration.

Seventy-five men students of the University of Michigan made up the cast which presented a musical comedy entitled "Cotton Stockings" in the Metropolitan Opera House, New York City, on December 18. There was also an orchestra of twenty students. The itinerary for the performances includes Toledo, Cleveland, Buffalo, New York, Philadelphia, Washington, Pittsburgh, Cincinnati, Indianapolis, Chicago, Grand Rapids and Detroit.

AN educational exposition in which all schools of the Oregon Agricultural College will unite will be given February 22 and 23, to show high school students what the college is doing in a vocational and educational way. A home economics style show, military parade, public speaking contest, high school band contest, typing contest, junior chamber of commerce convention, vocational guidance conference and an exhibit of the work of all schools and departments are planned. Thomas Arkle Clark, dean of men at the University of Illinois, will act as director of the vocational guidance conference, the purpose of which is to show high school students more about college courses in which they are interested.

ONE third of the population of Montana has taken or is taking advantage of the extension service of the University of Montana, according to a recent statement of Chancellor M. A. Brannon.

THE second conference of collegiate instructors of foreign service training subjects was held at the New Willard Hotel, Washington, D. C., Wednesday, December 26, under the direction of the Advisory Council and the Committee of Fifteen on Educational Preparation for Foreign Service. This conference was held on the day prior to the opening of the annual meeting of the American Economic Association. In May, 1922, 48 colleges and universities reported 3,122 students carrying work in foreign service as a major. In April, 1923, 52 universities reported 4,972 students. The two sessions of the conference, at 2 p. m. and 8 p. m., are open to the public.

A NATIONAL illiteracy conference will be held in Washington, D. C., from January 11 to 14, 1924, under the auspices of the Illiteracy Commission of the National Education Association, the United States Bureau of Education, the American Legion and the General Federation of Women's Clubs.

THE Philological Association of the Pacific Coast held its twenty-fifth annual meeting in the Assembly Hall of the San Francisco Public Library, November 30 and December 1, President Clifford G. Allen in the chair. Of the 157 members of the society, 106 are affiliated with the Modern Language Association, and 87 hold membership in the American Philological Association. During this session, a program of thirty-one papers was discussed, and the twenty-fifth anniversary of the society was informally celebrated by the men of the association at a smoker held at the University Club. Officers elected for the year 1923–24 are: *President*, Arthur P. McKinlay; *vice-presidents*, Raymond M. Alden and Clarence Paschall; *secretary*,

Arthur G. Kennedy; *treasurer,* Wm. L. Schwartz; and the following members will serve on the executive committee: Rudolph Schevill, Ivan Linforth, Edward A. Wicher and E. Whitney Martin.

ON December 6 and 7 the centennial celebration of Teacher Training in the United States was observed at the Indiana State Normal School at Terre Haute.

THE National Alumni Association of Princeton University will hold its biennial convention next year in Atlanta, Ga. The three-day session will open March 21 and will end March 23. George K. Reed, '99, of New York, is chairman of the national committee in charge of the convention.

A GIFT of $3,000,000 to Northwestern University from Mrs. Montgomery Ward, widow of a merchant, as a memorial to her husband, has been announced by President Scott. At the suggestion of Mrs. Ward, the university will create with this money a medical center upon the McKinlock Memorial Campus, Chicago Avenue and Lake Shore Drive, and will name it the "Montgomery Ward Memorial." It will embrace the University Medical and Dental Schools and will specialize not only in the training of students in medicine and dentistry but will actively serve the Chicago community in welfare work.

A BEQUEST of $100,000 to Princeton University was contained in the will of the late Moses Taylor Pyne, Jr., who died recently in New York. The bequest is in memory of Mr. Pyne's father, who was an alumnus and for many years a trustee of Princeton.

BOLDT HALL, the fifth and newest completed unit of the Cornell dormitory system, was formally presented to the university by the Cornellian council for the alumni body on December 15. Mrs. A. Graham Miles, daughter of George C. Boldt, for whom the building is named, has recently given $50,000 for another unit, to be named Boldt Tower.

SPECIAL CORRESPONDENCE

A LEAGUE FOR HONESTY

THREE years ago a League for Honesty was formed in the Commercial High School of Atlanta, Georgia. The idea was born in one of my English classes and quickly spread throughout the school. So many instances of dishonest thinking and acting, not only in Atlanta but all over the world, were being shown up in the papers which I was encouraging my students to read, that we wondered whether we could not do something about the training of the next generation to have a clearer idea of honesty—honest thinking and acting among adults depends upon honest thinking and acting among school pupils. During the three years the league has been in operation many students have given testimony as to how much good it has done them, in opening their eyes to what real honesty means. They are coming to believe that many can achieve honesty and that some must have honesty thrust upon them, to parody Shakespeare. They are trying to make honesty fashionable.

Though the league is in its infancy and has not yet felt its strength, it has inspired two of the other high schools to investigate it and one to give it a trial. Parents of children in other schools have said that they wished these schools would take up the idea; that when they tried to teach their children not to cheat in any way in their school work, the children would respond, "Everybody else is doing it." It may be that schools in other cities may wish to try out the idea of the league. For this reason I am publishing what we are doing.

Commercial High has a modified form of student government. Each class elects a first and second proctor to look after the interests and conduct of the class and to serve as helpers to the teachers. We called a meeting of the first proctors of the third grades (our school was then a three year school) and drew up the following covenant:

We, the students of C. H. S., in order

To firmly establish the principle of a square deal throughout the school,

To put the morals of C. H. S. students on a higher plane,

To make students square with themselves as well as with others,

Do bind ourselves together under this covenant to respect honesty by not cheating ourselves, and to promote honesty by not allowing, so far as lies within our power, any one in our classes to cheat.

ARTICLE I

The original members of the league are the junior classes of 1920–1921, 90 per cent. of whose students signed this covenant.

Any class of C. H. S. may become a member of the League for Honesty when 90 per cent. of its students sign this pledge and earnestly intend to keep it.

ARTICLE II

This pledge is to be enforced through the instrumentality of student government.

A council, consisting of the first proctor and a duly elected representative, not an officer in student government, of each class which is a member of the league, shall meet at a regular set time to be determined upon later.

These representatives shall constitute a council which shall duly elect a president, a vice-president and a secretary from their number.

The president of the council shall preside at all meetings. The secretary shall keep on record the list of class-members with the signatures of the students in the class who have joined the league.

The representatives of the class-members shall report to the council of the league any violations of pledges.

SIGNED:

After we found that the third grades welcomed the idea, we introduced it into the second and first grades.

In 1921 Commercial High School became a four year school, and we soon found our council too cumbersome, so we formed an executive board of the proctors and representatives of the senior classes and one representative from each of the lower grades. The proctors and representatives of each of the lower grades at first met every two weeks, the executive board, every week; but last year each body found a meeting once a month sufficient.

A teacher may report a case of dishonesty, or a representative may report one which he himself knows of or which has been called to his attention by any two members of the class in which the case occurred, to the supervisory teacher of student government, who sifts the case to make sure there has been no false accusation, and who tries to make the culprit confess. The case is then carried to the executive board, recorded and punished. In the first grade, for an offense of cheating in home work or daily work of any kind, the pupil is just warned by his proctor. For a second offense in the first grade or a first offense of this kind in one of the upper grades, or for cheating in examination in any grade, the culprit is made to take zero in that work in which he cheated and to take the semi-annual in that subject—all who make above eighty per cent. in a study are exempt from semi-annuals in Commercial High School. All his teachers are warned to keep an eye on him. The second time his name comes before the executive board he has the added punishment of having his name read in every class with the nature of his offense; for the third offense he would be suspended. No one has been suspended for cheating since the league was formed. —The league does not deal with cases of actual stealing of money, books, etc.—The pupil signs the pledge for his whole four years of school life, but he is given an opportunity to renew his pledge each year.

What were some of the difficulties of the league its first year? Three classes of pupils refused to sign the pledge: those who did not want to tell on others; those who said that they would look out for themselves and let the other fellow do the same; the honest thieves—those who refused to bind themselves not to cheat. The teachers who were especially interested in the league gave talks to the proctors and to the classes, showing them that they owed a duty to society to help make it as honest as possible; that those who are honest and need no pledge to make them keep so are in duty bound to help the other fellow; that helping the other fellow is the ideal of the twentieth century; that the world has progressed away from the selfish idea of each one saving his own soul. The honest(?) thieves were given to understand that they would be watched. The last two years every class has signed the pledge one hundred per cent.

Has the league done any good? Both teachers and pupils think so. The first graders say that it has helped them to see what real honesty means, and the classes are eager to keep their members up to the mark. Those who have held office say that they have been helped a great deal in trying to help others. The league has not done away with all cheating. It never expects to. It expects to effect a great improvement. The students are beginning to see that

their league is not just a means of getting the offenders punished, but is a means of preventing dishonesty by making each pupil take stock of himself and see wherein he has been dishonest in getting illegitimate help in his daily work. An ideal is put before our students towards which to strive, and a helping hand is given them over rough places.

LILLIAN M. PIERCE
COMMERCIAL HIGH SCHOOL,
ATLANTA, GA.

DISCUSSION

ALICE IN BLUNDERLAND

ALICE had been on the road for five days before she had any trouble with the car. She had never been this way before and therefore the country and the people looked strange to her. Now that her automobile was really on the point of refusing to respond to her urging she began to look about for assistance. Some three hundred yards ahead of her she saw the tottering figure of a very old and decrepit farmer. She drew up beside him and asked the way to the nearest garage.

"Garage—Garage," said the old man in a dazed and reminiscent tone, "Yes—No, young lady,—that is, we don't call 'em garages now-a-days. I can remember when I was a boy there was a man by the name of—"

"But," Alice interrupted, "something is the matter with my engine; I want help."

"Yes, Yes," said the old man, "right straight ahead, Miss, you'll come to it."

She did come to it—a great expanse of plate glass and white tile. Across the front of the building were blazoned the letters—V-E-H-I-C-U-L-A-R L-A-B-O-R-A-T-O-R-Y. As her machine crawled and sputtered up to the entrance the proprietor appeared from a side door with a commercial smile.

"Are you the head-mechanic?" said Alice.

He stared vacantly into space and Alice thought she heard a sniff of scorn. "I want you to fix my car—I don't know what is the matter with it," she continued with a vague feeling that she had asked the wrong question. After a moment of painful silence he said, "We do not repair cars here, Madame, we examine, diagnose and classify." The words were so distinct and so solemn that Alice could think of no better response than to get out of the car and stand helplessly facing the stranger.

Her timid manner seemed to please him. "Mechanic is a word we never use here," he said, "I am the chief operator." Alice noticed that he accented the last syllable as in 'educator.' "We will examine your car for you and determine its C. V." What is C. V., thought Alice, but something in the manner of the man kept her from asking. He stood up very straight and solemn. He was dressed in white linen and white gloves; in one hand he held a thermometer and in the other a piece of red tape. "Come in," he said, in another burst of friendliness, "and I will explain our whole plan to you." Alice followed him into the front office. The office was crowded with adding machines, colored charts, microscopes and test tubes.

The operator offered her a chair. "Now to begin with," he said as he placed his right elbow in his left palm and extended his fore finger, "we have discovered that automobiles differ, or, in other words, they are not all alike. We take this as our basic principle. What we really want to do is to classify them in terms of a common denominator. We must find some basis of comparison. One of our leading operators suggested that there is a fixed relation between the age of a car and its performance. Elaborate experiments were undertaken which left no doubt of the truth of this hypothesis. We may speak of the age of the car as its chronological age and the performance as its mental age—a car is as old as it feels, you know. Now if we divide the manufacturer's number by the mental age we get the C. V. I should have explained that the mental age is easily found by plotting a curve of normal distribution." Here the operator indicated a chart done in red and green ink. "You will observe that there are more ordinary cars than there are extraordinary ones. Now if we should find that your car is extra-ordinary it will be placed in the class at this end of the scale—or that, as the case may be. Science has proven that in a given number of instances the distribution is constant. I forgot to say that C. V. is an abbreviation for commercial value. We may safely assume that your car has a C. V. It is our duty to find it."

"I thought—," said Alice.

"You shouldn't think," snapped the operator, "that's my business. Now," he continued, lapsing into his lecture tones, "we find the C. V. by dividing the serial number by the functional derivative of the normal curve of frequency. This done, we have an absolute basis of classification. If you will now go with me to our work room I will point out the general features of our contribution to the great social problem of vehicular traffic." Lulled by the musical flow of articulate sound Alice followed as in a dream to the work rooms. "Here," said the operator, "is a group of cars with a C. V. of less than 'point-seven-five.' We call these our feeble minded cars. Over there is a large section for cars which satisfy their owners. We call those normal cars, and beyond, we have a space reserved for cars that are better than they ought to be. The stalls in that section are not full because most cars are no better than they ought to be." At this point the operator cleared his throat and was about to resume when Alice boldly pointed to the group of feeble minded cars and said, "Some of these cars are Fords and some are Cadillacs, some have broken wheels and some have broken engines, and some do not seem to be broken at all."

"They are though," said the operator, "our experts have classified them on the basis of the C. V. and this group is made up of those below 'point-seven-five.' The C. V. is the same." "Do you attempt to repair these cars?" asked Alice timidly.

"We used to," said the operator, "but it was found to be very expensive and our study convinced us that the C. V. remains constant. Here and there a wheel might be replaced and the cars made to run again but this would not affect the normal curve of distribution. The C. V. remains constant. To be sure mistakes are sometimes made in classification. If your car, for instance, should by any chance develop into a class higher than the one in which it is placed by our experts that would be sufficient evidence that the C. V. had not been properly calculated for, as I have told you, the C. V. is constant. This car is in fact lacking a radiator, and this one has no gasoline, and that one over there has gasoline but no spark plugs, and the one at the end of the row had a fool for a driver, but they are all below 'point-seven-five.' We call them our morons, as I indicated, that is, they are sub-normal in terms of the C. V. and the C. V. is constant, as you know."

"Is there anything more to be said?" asked Alice.

"Contrariwise," said the operator.

QUOTATIONS

LECTURES ON THE VOCATIONS AT HARVARD UNIVERSITY

Theoretically, the college graduate ought to be in a position to choose a career; practically, he is often put to it to get a job. Getting a job is an immediate necessity with some men by the time they have finished their senior year, their hopes of graduate training for a profession, if they had any, waiting perforce on the accumulation of further funds; for others, getting a job is an alternative to choice of a career because they have never given either careers or jobs their serious attention. A few men know what they want to do and what training it requires and have made their plans accordingly. The majority, whether they can afford further education or not, know little about vocations and are innocent especially of accurate knowledge as to the qualifications for happy and effective work in the callings they might enter, the rewards such callings offer, or the training they demand. Very few indeed have made a survey of vocations or tried to estimate their own fitness for success in any of them.

The lectures on vocations, which were undertaken last year under the leadership of Dean Greenough and are to be continued now under the direction of a committee headed by Assistant Dean Leighton, are intended to stimulate upper-classmen to consider seriously the problem of choosing a career and to give them information about a number of the professions commonly chosen by college graduates. The series last year was well attended. This year's lectures were begun by President Lowell with an address on "Choosing a career"; and the list of speakers includes leaders in a number of callings, who should be able to speak inspiringly and with authority on their several topics. The project is to be commended and we hope it will prove sufficiently useful to be continued.

Lectures on the vocations are of course but a

beginning in vocational guidance, and we assume that the committee plans to supplement its series of addresses by personal conferences and by providing means and materials for the careful study of vocational problems. The Harvard College Library and especially the collection of the Bureau of Vocational Guidance at the Graduate School of Education contain, no doubt, all the valuable material on vocations yet in print. A puzzled senior ought to be able, under proper direction, to discover in these collections at least the more important facts about a vocation he thinks of entering. Lectures on the professions have been instituted at Harvard a number of times in the past; but they have never been continued, because the interest in them has gradually died away. They tend almost inevitably to become "inspirational." Inspiration is desirable, but it seldom solves the individual problem. Information, in the clearest, most compact, and most applicable form, is even more desirable. Perhaps the committee might find it possible to prepare a brief compendium on a certain number of vocations, setting forth such facts as are known, directing students to the best sources of information in books and pamphlets, and telling them to whom to go for personal counsel. Some such service ought, we believe, to accompany the present series of lectures.—*Harvard Alumni Bulletin.*

BOOKS AND LITERATURE

The Older Universities of England: Oxford and Cambridge. By ALBERT MANSBRIDGE, with drawings by JOHN MANSBRIDGE. Houghton Mifflin Co., Boston, 1923. 308 pp.

MR. MANSBRIDGE has succeeded in this volume, which is based upon his lecture delivered on the Lowell Foundation in 1922, in presenting an admirable account of the place of the older universities in English history. While he has not neglected to deal with the domestic history of each of these universities, he has brought out most clearly the influences of political and social factors in their development. This point of emphasis in the study of any institution of higher learning is all the more important at a time when there is a tendency to bring into the foreground of university work the more immediate practical needs of the time. The following statement by Mr. Mansbridge may not meet with general agreement, but it represents an ideal that is worthy of consideration.

> Directly Oxford and Cambridge seek to conform themselves to modern needs, to justify themselves to the Philistines outside—however excelled in other ways such Philistines may be—they may do more work which can be recorded in elaborate tomes, they may send out more young men to perform the tasks of the city and the factory, but they will lose that ineffable charm, that pulsating power, that mysterious influence which calls forth the veneration of men in other universities and in other lands.

Following so soon after the Report of the recent Royal Commissions on Oxford and Cambridge and the first important government grant to these universities, Mr. Mansbridge's book inevitably raises the interesting speculation whether these institutions can continue to maintain the qualities so well summarized, if they must at some time in the future justify themselves to the Philistines outside. It is on this point that the chief differences between the English and American universities center. And yet Mr. Mansbridge shows clearly that the older universities of England have not stood aloof from the demands made upon them, and that without sacrificing the ideals of scholarship and learning.

Mr. Mansbridge has imparted to a work which in other hands might have become a dull piece of research some of the charm and power that he has learned to love in the older universities and not a little of the vigor and robustness of the newer universities, with which he should deal in another volume, for both claim him equally.

I. L. KANDEL

TEACHERS COLLEGE,
COLUMBIA UNIVERSITY

NEW BOOKS

A Modern College and a Modern School. By ABRAHAM FLEXNER. Garden City, N. Y., Doubleday, Page and Company, 1923. Pp. 142.

A MOVEMENT towards "specific aims" in college education is the theme of the main paper in this book of Dr. Flexner's. If "purposeful organization" of college work with reference to

a career in medicine is a good thing, he asks, is it not possible that purposeful organization of college work with reference to engineering, to law, to teaching, to the ministry, to business, would be a good thing, too?

Dr. Flexner admits that the American college does not take kindly to a definitely avowed, specific, objective purpose:

> The college will allow the student unassisted to aim at an objective, but it does not like to acknowledge the fact and deliberately help him. A concrete proposition like training in business economics is forced outside the strictly academic pale; and the college curriculum, instead of becoming progressively more purposeful, becomes progressively poorer in definite purposes.

Reorganizing the curriculum on the basis of objective aims would harmonize admirably, Dr. Flexner finds, with the recently introduced honors courses. He says:

> It is the very essence of the honors course that intensive, protracted and fairly independent work be done by a student, freed from small and disconnected required courses, quizzes, reports, term examinations, etc. It is assumed that purpose will suggest his studies, maintain his interest, and secure high quality of achievement.

The other paper contained in this volume is a reprint of "A modern school," Dr. Flexner's much discussed "Occasional paper" of the General Education Board. In his introduction Dr. Flexner hints that he hopes some day to supplement these two papers on the secondary and college periods with a third, having as its subject "A modern university."

Bibliography of Educational Measurements. Compiled by the Bureau of Educational Measurements, Indiana University. Indianapolis, 1923. Pp. 120.

THIS is a list, arranged alphabetically by subject and author, of all the achievement tests that have come under the notice of the Indiana Bureau. Most of the tests are accompanied by statements, in the words of the author of the tests, as to what they are and what they seek to accomplish. Approximately 400 tests are listed, under 38 separate groupings.

In making and publishing a list the Indiana Bureau has rendered a very important service. When the list is reissued, however, as it deserves to be, it should be relentlessly edited. It it not merely that "no effort has been made to check the accuracy of the author's statement," as admitted in the foreword, and that some of the tests listed are "almost, if not wholly worthless," but further that a large amount of publishers' advertising material has been allowed in without quotation marks. The book gives every indication of having been printed directly from office cards without the intervention of an editor. To illustrate: Dr. Smith says in his foreword that "no statement has been made as to quality of the test," yet it is not unusual to find statements like the three following:

> This is not a test, but a thorough and comprehensive number drill system containing original features that make it practical, workable and effective.
>
> Valuable as a system of teaching as well as testing.
>
> These tests are of almost no value without corresponding practice material which is not yet published.

The Management of Smaller Schools. By C. RAY GATES. Boston, Houghton, Mifflin Company, 1923. Pp. 174. (Riverside Educational Monographs.)

RECENTLY there has been some commendable effort to give consideration to the problems of school administration in the smaller cities, towns and villages of the United States. Much of the literature on the subject is still more or less inaccessible, however, in reports, bulletins and circulars of the United States Bureau of Education Association or in periodical articles. Mr. cation, in proceedings of the National Educa-Gates, who is superintendent of schools at Grand Island, Nebraska, "offers this book as a pioneer attempt to bring to those in the smaller schools some of the results of a rather extensive study of educational literature as well as a considerable experience as teacher, principal and superintendent in small school systems."

The scope of the book is well indicated by the chapter headings: "The superintendent of schools," "What to do before school opens," "Problems of school attendance," "The course of study," "Classroom visitation as a means of supervision," "Teachers' meetings," "Measuring the efficiency of instruction," "The elemen-

tary school principal," "The high school principal," "The school nurse," "Efficiency in the office," "Getting ready for next year."

The Silent Reading Hour. Teachers' Edition. First Reader. By GUY THOMAS BUSHWELL and WILLIAM HENRY WHEELER. Chicago, Wheeler Publishing Company, 1923.

IT is one of the constant difficulties in keeping education up with progress that text-books and other materials are seldom available soon enough. Many who would like to introduce newer methods and newer material are handicapped by the omnipresence of the traditional text.

"The Silent Reading Hour," First Reader, will accordingly find a considerable group of teachers eager to welcome it. Here is a book that takes into account what we now know about eye-movements in silent reading, the need for a new content, accepted principles of type page, spacing and leading and present knowledge of vocabulary. The reader is attractive typographically and has proved on trial to be very interesting to young children.

The Teachers' Edition of the reader contains a brief explanatory statement of the purpose of the book, suggestions on the difference between silent and oral reading, a discussion of the measurement of reading attainment and introductory lessons.

First Course in Algebra. By EDWARD I. EDGERTON and PERRY A. CARPENTER. New York, Allyn and Bacon, 1923. Pp. 392.

ONE of the recommendations of the National Committee on Mathematical Requirements has to do with simplification of the terms used in mathematics, especially with younger children. The authors of this text have taken this to heart. They say:

> The average age of children who are beginning algebra is between 13 and 15 years. Their vocabulary is limited; their point of view, background, and experience are those of children. . . . Our aim has been to give all explanations in detail, in the simplest language, and without technical expressions.

Not the least interesting feature of this text is the effort to keep historical material and appropriate pictures before the pupils. The frontispiece is a portrait of Sir Isaac Newton, and there are portraits through the book of Euclid, Pythagoras, Newton as a boy and Descartes. Generous use is made of graphs and graphic methods.

W. CARSON RYAN, JR.
SWARTHMORE COLLEGE

EDUCATIONAL RESEARCH AND STATISTICS

THE EFFECT OF OUTSIDE WORK AND ATHLETICS UPON SCHOLARSHIP

AN attempt was made to discover whether or not the person who is self-supporting in this school, K. S. T. C., is apt to be successful in his class work and also to find what effect, if any, upon class work results from the participation in organized athletics. The study is not completely accurate because it was impossible to discover all people who were partly self-supporting during their residence in this college. There are many who work at home or who do odd jobs who could not be identified. On the other hand, our study included all those who held positions as student janitors or other help about the campus and such others who received their employment through bureaus conducted by the Y. M. C. A. and the Y. W. C. A. of this school. Undoubtedly, it included a large percentage of the total group of those working.

The index number used to designate the average grade of students was calculated by the following method: For each hour of A work the value of one was given; for each hour of B work the value of two; for C work the value of three; for D work the value of four and for failing work the value of five. The sum of these values divided by the total number of hours carried, therefore, gives the index number. Work which was "dropped" or in which an incomplete grade was taken was not included in the study, as there was no way of foretelling what grade might have been given or will be given upon completion of the course. It should be noted that the smaller the value of the index number the higher degree of scholarship it represents. The following table shows the amount of work for which each group mentioned was enrolled, the number of hours which it carried successfully, the percentage of hours carried successfully and the average grade:

TABLE I—SCHOLARSHIP OF STUDENTS WHO DO AND WHO DO NOT DO OUTSIDE WORK

Students not working	Men	Women
Av. credit hrs. enrolled	14.261	15.453
Av. credit hrs. successful	12.386	13.847
Per cent. credit hrs. successful	86.85	89.609
Av. grade	2.912	2.788
Number of cases	139	631
Students working		
Av. credit hrs. enrolled	15.02	14.756
Av. credit hrs. successful	13.686	13.993
Per cent. hrs. successful	91.123	94.828
Av. grade	2.849	2.591
Number of cases	96	152

In this table it is seen that those men who are engaged in outside work enrolled in more hours, are successful in a larger percentage of hours in which they enrolled and received higher grades than those who have no such outside work. The same conditions prevail among the women, with the exception of the fact that those who are partially self-supporting do not enroll in quite as much work as those who have nothing else to do. It would be interesting to know if this state of affairs is typical in other schools.

Still more interesting to some will be the account of the scholarship of athletes. This study has to do with the male athletes only of this school, and includes those men who were in residence and who at any time have won the "K" in organized athletics. Table II shows the scholarship of all these men taken together, and of certain groups as designated in the table.

TABLE II—SCHOLARSHIP OF ATHLETES, ATHLETES WHO DO OUTSIDE WORK AND ATHLETES WHO DO NOT DO OUTSIDE WORK

	All athletes	Those actively engaged in athletics and who do outside work	Those actively engaged in athletics and who do not do outside work	Those not actively engaged in athletics but who work	All men athletes and non-athletes
Average hours enrolled	15.17	15.	15.88	14.9	14.664
Average hours successful	13.65	13.4	14.11	13.57	12.558
Per cent. hours successful	89.94	89.33	88.81	90.76	88.77
Average grade	2.849	3.364	2.816	2.607	2.879
Number of cases	40	10	9	21	235

The index number for scholarship was computed as in Table I. It is evident from this table that from the three activities, school work, athletics and outside work, two may be carried without seriously endangering one's scholarship standing, but that the addition of a third activity very seriously affects the grades which can be secured. It implies that those students who are not engaged in one of the activities mentioned in addition to school work employ the corresponding hours in ways which do not increase their college efficiency. The above conclusion is particularly shown in the second column of Table II. It is seen that those men who are engaged in athletics and who were partially self-supporting, also, attempted as much class work as the average student not so engaged. The resulting effect on scholarship is shown by the fact that the average grade received by these, 3.364, is much lower than that received by any other group. This grade is between a C and a D grade. D is a passing grade, but as no person can be graduated from this school who has more than 25 per cent. of his work below C., the above represents in reality a large amount of work carried unsuccessfully. There is always the possibility also that an instructor who knows the unusual amount being attempted by an individual will be somewhat more lenient with him than with other people. It would seem, perhaps, a necessary administrative duty to insist that one engaged in athletics and who at the same time must earn money for a portion of his expenses materially reduce the amount of class work which he undertakes. It is realized that the number of cases in the latter part of this study are few. They suggest, however, a problem which should be investigated more widely.

D. A. WORCESTER

BUREAU OF EDUCATIONAL MEASUREMENTS AND STANDARDS, KANSAS STATE TEACHERS COLLEGE, EMPORIA, KANSAS

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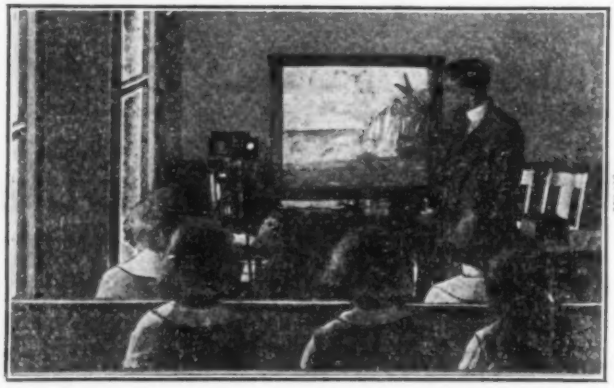

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